

Date: Friday, 9/21/2007 12:59:26 PM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	X-TUBE EXTRUSION OH-58		
Job Number	34775					
Estimate Number	10005					
P.O. Number			Part Number	D6005128		
This Issue	9/21/2007	S.O. No.	Drawing Number	D6005 REV A		
Prsht Rev.	NC		Project Number	N/A		
First Issue	/ /	Type	Drawing Revision	A		
Previous Run	34686		Material			
Written By			Due Date	9/28/2008		Qty: 28 Um: Each
Checked & Approved By	<i>JL 07.09.24</i>					
Comment	Est Rev C 04.06.15 Added tolerance to Step 2 KJ/JLM					

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	PG	PURCHASING	
Comment: PURCHASING			
	Issue P/O: <i>4660</i>	<i>c/o 7/09/24</i>	(28)
a) Order as per Dwg D6005 b) Material: 2.750 x 0.375 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength = 66 ksi e) Tolerance are per ASTM B210 (see details on Dwg D6005) f) Material certification required			
2.0	D6005128P	Crosstube material	
Comment: Qty.: 1.0000 Each(s)/Unit Total : 28.0000 Each(s)			
Crosstube material			
3.0	PACKAGING 1	PACKAGING RESOURCE #1	
Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached			
4.0	QC6	DIMENSIONAL CHECK	
Comment: DIMENSIONAL CHECK Ensure Material certification comply to Dwg D6005			
<i>So 08/08/20 (220) called</i>			

P:

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Seq. #:	Machine Or Operation:	Description :
5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
		 <i>a/a 508/08/21</i>
Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1		
6.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
		 <i>a/a 508/08/21</i>
Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION		
7.0	PACKAGING 1	PACKAGING RESOURCE #1
		 <i>508/08/21</i>
Comment: PACKAGING RESOURCE #1 Identify and Stock Location: <i>QA LG</i>	<i>a.m 08-08-21</i>	<i>(2Y)</i>
8.0	QC21	FINAL INSPECTION/W/O RELEASE
		 <i>08/08/2008</i>
Comment: FINAL INSPECTION/W/O RELEASE		

Job Completion



-MF 08-08-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

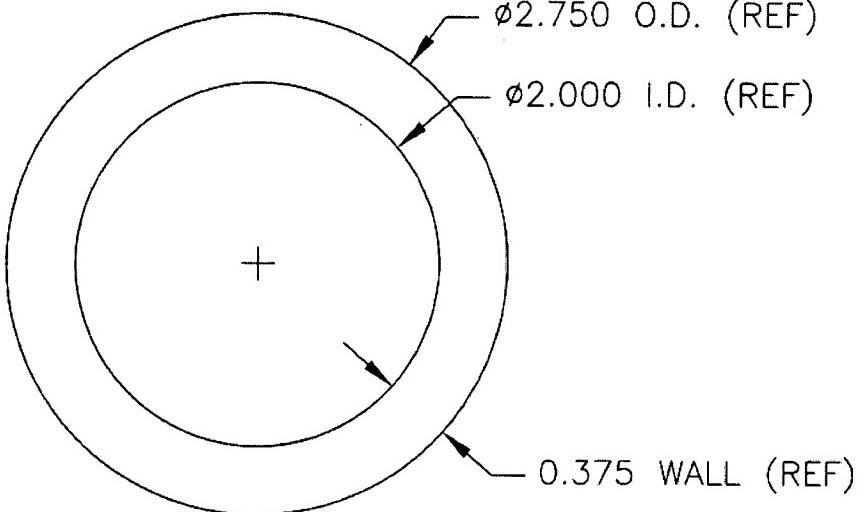
NOTE: Date & initial all entries



DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D6005
DATE		REV. A SHEET 1 OF 1
00.11.17		SCALE 1:1
A	00.11.17	NEW ISSUE

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24



NOTES

- 1) D6005-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-22575 OR
QQ-A-200/11) SEAMLESS ALUMINUM TUBE.

MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi

- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:

OD.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34775

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde:	Dart Aerospace Ltd.	Zeugnisnummer:	1207/08										
<i>Client:</i>		<i>Cert No.: / No. du certificat:</i>	PO 00004660										
	1270 Aberdeen Street K6A1K7 Hawkesbury, ON Canada	Bestellnummer:											
Produkt:	Rohre nahtlos gepresst <i>Tubes seamless extruded</i>	<i>Order No. / No. de commande</i>	27068/3										
Product / Produit:	AMS - QQ - A - 200/11E; Spezifikation Dart Aerospace 6005	<i>Auftrag:</i>											
Spezifikation:		<i>Our Reference/Notre Reference:</i>											
<i>Specification:</i>													
Werkstoff:	7075	Zustand:	T 6511										
<i>Alloy/Alliage:</i>		<i>Temper/État</i>											
Abmessung <i>Size / Dimension</i>	2,750 INCH x 2,000 INCH x 0,375 INCH x 128,000 INCH D6005-128 2.750 x 0.375 x 128												
Kennzeichnung <i>Marking/Marquage:</i>	ALUnna - Cert No. 1207/08 - 7075 - T 6511 - Cast No. 81744 - AMS - QQA 200/11 - 2.750" OD X 0.375" Wall - Heat No. 1840 - Lot 27068/3-1 - PO. 00004660												
Lieferung <i>Delivered Material / Matérial délivré:</i>	24	lbs	Country of Manufacture: Germany										
	873												
1. Chemische Analyse		Chemical Analysis / analyse chimique											
Charge/ Cast No.	Si Fe Cu Mn Mg Cr Zn Ti Pb Zr Bi Sn Ni												
min.	0,40	0,50	1,2	2,0	0,30	2,1	0,18	5,1					
max.						2,9	0,28	6,1	0,20				
81744	0,06	0,13	1,35	0,04	2,47	0,18	5,83	0,04	0,01	0,03	0,01	0,01	0,0001
Hydrogen content: 0,10 ccm/100 g Al Elements without indication < 0,01 %				country of melt manufacturer: Germany									
2. Mechanische Eigenschaften		Mechanical Properties / Valeurs Mécaniques											
Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.							
min. max.	77,0	66,0				1840 - 24 pcs.							
1	88,015	81,200	10,0			<i>68/08/20</i>							

RMS outside 25 - max. 20,8 μ "

Ergebnis der Prüfungen: Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order
Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

A p: